UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,088	02/07/2001	Nobutaka Ishidera	1086.1137/JDH	4568

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EXAMINER
CHUNG, CHI WHAN

ART UNIT	PAPER NUMBER
2115	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| Office Action Summary | Application No. 09/778,088 | Applicant(s) ISHIDERA, NOBUTAKA |
| | Examiner Chi Whan Chung | Art Unit 2115 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *07 February 2001*.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 - 29* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1 - 29* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.
13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.
14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3, 4*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

U.S. Patent and Trademark Office
PTOL-326 (Rev. 11-03)   Office Action Summary   Part of Paper No. 5

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 9, 18, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kulakowski et al., patent no. 6,418,535.

3.   As per claim 9, **Kulakowski et al.** teach a software processing apparatus

comprising:

an operating environment determining unit which determines an operating

environment of a system (col. 3 lines 3 – 6, see Abstract, Fig. 1A, and Fig. 1B); and

a switching unit (col. 3 lines 7 – 14) which performs switching between a process

of heavy load on a processor (col. 3 lines 39 – 48) and a process of light load on the

processor (col. 4 lines 43 – 50) in accordance with said operating environment (see

Abstract, Fig. 1A, and Fig. 1B).

4.   As per claim 18, since it recites the method of operation of the apparatus defined

in the apparatus claim 9, it is rejected accordingly based on the rejection of the

apparatus claim.

5.   As per claim 29, since it recites the program that runs on the apparatus defined

in the apparatus claim 9, it is rejected accordingly based on the rejection of the

apparatus claim.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1 – 8, 10 – 17, 19 - 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Nakaya et al., patent no. 5,949,484, and Kulakowski et al., patent no.

6,418,535.

8.   As per claim 1, **Nakaya et al.** teach a software processing apparatus comprising:

a battery monitoring unit which determines remaining amount of storage battery

used for electric power source (col. 3 lines 18 – 21, Fig. 6, and Fig. 7); and

a switching processing unit which performs a process of heavy load in a first

environment when the battery level is high, and performs a process of light load in a

second environment requiring power saving when the battery level is low (col. 3 lines 25

–28, and col. 12 lines 9 - 15).

Nakaya et al. do not teach a software processing apparatus comprising:

an operating environment determining unit which determines whether an

operating environment requires power saving or not.

Kulakowski et al. teach an operating environment determining unit which

determines whether an operating environment requires power saving or not (col. 3 lines

3 – 6, see Abstract, Fig. 1A, and Fig. 1B)

It would have been obvious to one of ordinary skill in the art to integrate

Kulakowski et al.'s operating environment determining unit to Nakaya et al.'s apparatus

so that the apparatus be able to determine whether the operating environment requires

power saving or not, and to perform a process of light load or heavy load accordingly.

9.   As per claim 2, Nakaya et al. teach a battery monitoring unit which determines

remaining amount of storage battery used for electric power source (col. 3 lines 18 – 21,

Fig. 6, and Fig. 7); and

a switching processing unit which performs a process of heavy load in a first

environment when the battery level is high, and performs a process of light load in a

second environment requiring power saving when the battery level is low (col. 3 lines 25

–28, and col. 12 lines 9 - 15).

Nakaya et al. do not teach an operating environment determining unit which

determines a status where the apparatus operates on an external power supply as said

first environment, and determines a status where the apparatus operates on a battery

as said second environment.

Kulakowski et al. teach an apparatus according to claim 1, wherein said

operating environment determining unit determines a status where the apparatus

operates on an external power supply as said first environment, and determines a

status where the apparatus operates on a battery as said second environment (see

Abstract, Fig. 1A, and Fig. 1B)

Commercially available portable electronic apparatus utilize both internal battery

and external AC power as their power source. Kulakowski et al.'s apparatus is the

evidence that there is a motivation to determine the type of power source supplied to

the apparatus, to determine whether it is external power supply or a battery, in addition

to the effort of determining the remaining amount of storage battery as in Nakaya et al.'s

apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art to

integrate Kulakowski et al.'s apparatus to Nakaya et al.'s apparatus so that the

apparatus would be able to determine its operating environment based on the status of

the power supply being external power supply or a battery.

10.   As per claim 3, Nakaya et al. teach an apparatus according to claim 1, wherein

said processing of light load is a process obtained by simplifying said process of heavy

load (col. 3 lines 48 – 56).

11.   As per claim 4, Nakaya et al. teach an apparatus according to claim 3, wherein

said simplified process is a part of said process of heavy load (col. 3 lines 48 – 56).

12.   As per claim 5, Nakaya et al. teach an apparatus according to claim 3, wherein

said simplified process is a process of using data obtained by processing data used in

said processing of heavy load (col. 3 lines 48 –56).

13.   As per claim 6, Nakaya et al. teach an apparatus according to claim 3, wherein

said simplified process is another process realizing the same function as that of said

process or heavy load (col. 3 lines 48 – 56).

14.   As per claim 7, Kulakowski et al. teach an apparatus according to claim 1, further

comprising a setting unit of setting the switching between said process of heavy load

and said process of light load to be valid or invalid (see 98 in Fig. 5, and col. 5 lines 57 –

col. 6 lines 9)

15.   As per claim 8, Nakaya et al. teach an apparatus according to claim 1, wherein

said process of heavy load and said process of light load are performed by a processor

(see Fig. 4, and Fig. 5), and said processor changes an operation clock frequency in

accordance with load of a process (col. 3 lines 31 – 38).

16.   As per claims 10 - 17, since they recite the methods of operation of the

apparatus defined in the apparatus claims 1 – 8, they are rejected accordingly based on

the rejection of the apparatus claims.

17.   As per claims 19 - 26, since they recite the medium of operation of the apparatus

defined in the apparatus claims 1 – 8, they are rejected accordingly based on the

rejection of the apparatus claims.

18.   As per claim 27, Kulakowski et al. teach other program, in addition to said

program, which interacts with an operator and can override the power mode of

operating environment determining program (col. 4 lines 53 – 64).

Therefore, Kulakowski et al. teach a recording medium according to claim 19, wherein said program is commonly used by other program and performs switching between said process of heavy load and said process of light load in response to a notification from the other program (col. 4 lines 53 – 64).

19.   As per claim 28, Kulakowski et al. teach a recording medium according to claim 27, wherein said program determines the contents of said process of heavy load and the contents of said process of light load in accordance with the contents included in the notification from said other program (col. 4 lines 53 – 64).

Conclusion

20.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

21.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chi Whan Chung whose telephone number is (703)305-8788. The examiner can normally be reached on Monday~Friday 8:30am -4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (703)305-9717. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)305-

3900.

C.C.

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100